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The stages of language acquisition are presented. The first stage of language acquisition occurs in the child before the age of two. Children learn from those around them.

The second stage occurs when the child starts to ask for the names of objects. He is helped most by the person who shows him several objects of the same name. The child then sees the differences between the objects.

The third stage occurs when the child enters school. Here he faces new situations; the result is the development of inner speech--the beginning patterns of verbal thought.

Since intra-personal situations influence the child's language development, it is stated that the middle-class environment stimulates language development. Here there is a predominance of verbal stimulation and an abundance of tasks, challenges, and games that are met by verbal mediation. On the other hand, the lower-class child is at a disadvantage in regard to language development because of the emphasis on passivity among children raised in lower-class homes.

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# ENVIRONMENTAL INFLUENCE ON LANGUAGE DEVELOPMENT AND ENRICHMENT*

Vera P. John, Ph.D.
Institute for Developmental Studies
Department of Psychiatry
New York Medical College

When speaking to you I use man's most effective tool to reach out and effect others. I communicate, relying on those bits of sound that are the stuff of language, that fashion and mold my experience. Language is in fact, a vital and inclusive force in man's external and internal life. Within my own speech process, I not only effect those who listen to me, but also my own internal thinking and cognitive structure.

The young child uttering his first word, fulfills his parents' expectation for a peculiarly human contact. The very nature and intensity of the parents' expectation can effect the rate at language acquisition, which in turn, becomes the most sensitive indicator of certain characteristics of the early environment.

A by now classical study of Broadback and Irvin (1) has shown that children raised in their own homes or foster homes vocalize more than children living in hospital or institutional settings when assessed as early as six months of age.

Rheingold and Bailey(9) have found that eight (experimental) children who had a single mothering experience excelled their controls, who had six to eight mother surrogates in the areas of vocalization.[1]

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*Presented at the Arden House Conference on Pre-school Enrichment of Socially Disadvantaged Children, December, 1962, Arden House, Harriman, New York

[1]This finding held up even in a 19 month delay or retesting period. Other differences in other areas of behavior were washed out by the period elapsing between the experiment and the assessment.

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And summarizing a large body of literature on language acquisition McCarthy (6) has suggested that there is a gradient of normal language development related to the amount and kind of contact with the mother.

We may suggest here a modification of this position; that is, the frequency, manner, and inclusiveness of the adult child relationship during his early years form the basis of the quality of the child's verbal behavior at the age 4, 5 and later. In the case of many children, instead of a single dominant relationship between mother and child, a number of people, both adults and children, partake in the process of handling, teaching, and loving the young child. The latter pattern of relationships is more characteristic among lower class groups, (families of the extended type), than middle class families of America. The process of learning to talk has been primarily studied in the context of the small nuclear family and as McCarthy (7-p.13) put it, currently, findings are based upon the "white, pre-school child of the middle-western United States."

Thus we are in a difficult position to assess the nature of the environmental influences upon the lower class child. But findings such as Rheingold's force us to ask what effect, in terms of the child's rate of language acquisition, is produced by the presence of those people who are most frequently around him and who do not provide the kind of verbal interaction which is supposed to be the characteristic of a middle class upbringing.

Before we are in a position to answer that question, and before we focus on any single generalization, however well substantiated in fact, let us examine in more general ways what happens during the process of language acquisition. The pre-verbal years of a child's life are hard to conceptualize; our inquiry leads us to question the inner workings of thought and speech, the side, as Vigotsky put it, "which is turned toward the person, not toward the outer world" (10-p. 152). Early in language learning, words are one attribute of the object. They form, as Dr. Hunt described in his book, . . . "an undifferentiated constellation of things and actions in a baby's life. . and one word, or perhaps one semi-word, signifies the whole constellation or any part of it indiscriminately." (3-p. 180) The child when hearing the word, seeing the object and touching it, does not yet differentiate between the fact that touching is one part of the object; but its name is something different. To him it is a total experience. The child learns the name of the object by association. At this point in his learning the bond between word and referent is acquired by the association between the sight of the object and the sound of its name. After his first few words, then, the child begins to engage in an active process of looking and pointing at objects and asking for names. Sight is not only a sensory process of the eye but as in the case of Helen Keller, seeing, through the arduously repeated

association of touch, can also convey the establishment of a connection between sign and object.[2]

The cognitive activity underlying the ability of the child to generalize appropriately a word from one setting to another requires a concurrent simplification of the environment, that is, the discovery of what are irrelevant details in objects and what the commonalities are which allow the same word to be used in more than one setting.[3]

Vigotsky proposes word meaning as a unit of analysis of language and thought within a child's development. Since the word refers to a class of objects, the child's process is that of categorization, finding a solution or meaning of a word within the structure and framework of his own world. This is not the process of simplification that an adult uses of breaking down an abstraction to his verbal level of understanding. In this sense, one could claim an almost ontogenetic difference between the child's kind of clarification and the adult intellectual process wherein lies some of the difficulty of verbal communication between children and adults.

During the child's development, though increasingly relying upon language as an intra-personal process, he is also inextricably involved in the interpersonal aspects of communication. As contrasted with a maturational process such as learning to walk, words can only be learned from another person. The oft-repeated and misinterpreted dichotomy posited by Piaget between egocentric- or speech-for self, and socialized language can be viewed in a different light when one carefully analyzes the varying social contexts in which language is acquired. The Swiss investigator pinpointed age seven as the transitional point between the predominance of egocentric and the predominance of socialized

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[2]The distinction is made here between the acquisition of words via the simple process of association more in the tradition of the conditioning model, and the acquisition of words as they possess referential meaning for the child.

[3]In the conditioning paradigm where one learns a word via association, as every experimenter having used conditioning techniques knows, it is important to keep the setting constant so that an association is built between unconditioned and conditioned stimuli and the response. The first words that the child learns may be learned by this repeated re-occurance between object and word. However, the next and more important phase of language learning occurs when the child actively engages in asking for names and then can use the name or label appropriately in more than one setting. In spite of this, most investigators have used the production of words as a unit of study without attempting to understand the cognitive activity underlying. When a child transposes a word from setting to setting, the cognitive

language processes; he felt, that as children enter school and learn to work in cooperative groups, their language reflects a socialized awareness of the listener.[4] It is possible, that the findings of American investigators of an earlier shift toward socialized language is a reflection of American patterns of child-rearing practices which are at variance with those in Switzerland.

But what is most important here is that egocentric speech never dies off, as Piaget suggests, to become socialized speech. Rather, it is the beginning of a rational, purposeful process serving the child's more complex activities. When the child reaches school age, it is not social adaptation in the familiar sense of the term that is observed; but a "thinking for himself", a "working out" adaptation, which is represented in the adult as his "inner speech". As the child faces new situations, it is this development of inner speech which is observed; the beginning of patterns of verbal thought.

In brief, I would like to describe three stages in language acquisition during the pre-school years.

First, before the age of two, the child is forming rudimentary connections of space, time and enduring object. Though as yet without language, he is learning to attend to the speech of others, his babbling coming to drift more and more toward the phonetic elements of the language spoken around him. During this stage, children seem to profit from being talked to and smiled at; as Lewis has shown, children have a vocalization and a general response of their own in response to someone talking and smiling at them in contrast with a silent and non-smiling adult.

At the end of this stage, the first few words are acquired, -- a thing has come to have a name, and, as I have already mentioned, the early, primitive association between word and its referent has been made.

At the beginning of the second stage he now starts to ask for names and the wise language tutor helps the child by showing several instances of the referent, several objects which have the same name. The child has to learn which are the critical and invariant dimensions of those objects which have a common label.[5]

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[4]Co-operative play among children during their pre-school years becomes a challenging and effective stimulus developmentally important to their own intra-communicative language process.

[5]Tutors of the deaf are exceedingly wise at this. They can present to the child varying instances, day after day, of the same word that they so laboriously teach to the child via lip reading methods.

Eleanor Gibson has argued (2) that the very production of a word, and the feedback it produces, helps sharpen the underlying perceptual processes necessary for correct labeling. Children, once having acquired a simple set of labels and the rudiments of syntax, engage in a tremendous amount of language play. The young child of two to four can be characterized as hungry for names and playful with words.

First born and only children seem to profit from adult attention particularly during this stage of verbal development. Helen Koch (4) has found the greatest proficiency in verbal skills among those first-born boys who have a sibling two to four years younger. She interprets these results as follows:

> "If a child has his parents' undivided attention for more than two years before his sibling arrives and at a time when he is making most rapid progress in acquiring speech he will be relatively more influenced by their verbal and intellectual stimulation than one would be whose sibling follows close on his heels."

The child is displaying some measure of his recognition of the utility of language as a cognitive tool by the volume and intensity of talk during these pre-school years. When saying this, however, are we again basing our statements on the knowledge we have gained, as psychologists and linguists by studying our own children, -- or is there indeed, a universal spurt of verbalization in all children regardless of some of the socio-psychological features of their environment at this age?

By way of illustration of some of the socio-economic forces during the second stage of language development one may speculate that the middle-class child lives in an environment where there is a predominance of verbal stimulation and an abundance of tasks, challenges and games that are best met by verbal mediation. In this environment much exploration occurs through questions, and answers, rather than through motor manipulation. Though our knowledge of lower-class urban life is sparse, some workers have reported on the relatively greater emphasis on passivity among children raised in the slums. As the infants are held, and walked by their older siblings through the crowded quarters there is little encouragement of the kind of speech that is the stimulus in the middle class world.

The very pattern of language that the urban Negro child, in particular, is exposed to, presents him with manifold problems. Often, his parents have come from the South with their language reflecting their geographic origin; and even within the individual family there may be an older brother or sister who has attended school in the North, speaking differently from the parents. Not

only is the young Negro child thus exposed to a variety of voices because of a greater number of people taking care of him, but the very nature of the speech itself varies more from person to person.[6]

It is both surprising and disturbing, that there are no careful linguistic studies of speech changes characterizing a substantial number of Americans who have migrated North in the last two decades.

Listening to the language of the pre-school child when he is engaged in his monologues, -- or in "egocentric speech" according to Piaget, one is struck by the closeness of his speech to that of his language-tutors, usually his parents. The little girl when talking to her doll, exaggerates her mother's talk. The child pulls in, via his monologues, the world that he experiences; and the foundation that this kind of speech then serves for verbal thinking is the process that Vigotsky has described in great detail and which we can translate into modern behavior theory.

We can say that overt language becomes the basis of covert verbal mediation. Again, one is struck by the question, do children who engage in a great deal of free verbalization, and self-direction when pre-schoolers, excell at a later stage in problems requiring verbal mediation and abstraction? And what, if any, are the effects of differential child-rearing practices on the development of verbal mediation?

Very briefly, what is going on within a third stage of language development? The language of the six-year-old child reveals a more socialized pattern of speech as he enters first grade. His silent problem solving occurs as he becomes aware of the existence of an audience. Language already has been internalized. His articulation and grammar is more akin to that of the adult; his language at the same time loses some of its spontaneity and trend to innovations. The third stage of language development then, is the stage during which the intra-personal or speech for self and inter-personal or communicative speech becomes more sharply differentiated.

Study Results

For theoretical purposes, we can think of language as a unitary process. However, for purposes of an empirical investigation, we have differentiated between various aspects of language behavior.

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[6]The learning of words is really a very difficult thing even though most of us manage to accomplish it. The child virtually has to develop a triangular relationship among the characteristics of the object where some simplification and some generalization takes place, the attached label where again he has to discover some of the commonalities, and then the reproductive act itself.

During the last three years, the staff of the Institute for Developmental Studies has been engaged in a study of the verbal and cognitive behavior of 250 middle-class and lower-class children.[7] In this study, often referred to as the verbal survey, we categorized measures of language behavior into assessment of labeling, assessment of sequential language, and assessment of language-conceptual behavior.

The acquisition of names is a process which can be separated into a receptive and an expressive component. While the child is listening to the speech of others he is exposed to a repeated simultaneous occurrence of objects and labels. By these means he can acquire receptively the names of objects. The test in our battery aimed at assessing the extent of a child's receptive vocabulary is the Peabody Picture Vocabulary Test. However, although a child is exposed to a great deal of language, (such as the language of TV) and familiar with receptive language as he comprehends, it is his own engagement in speech which effectively reinforces the act of labeling. We have tested the hypothesis, that differences in language behavior are least among children drawn from different socio-economic environments as revealed by the PPVT. We have attempted to show, also that a task which requires a highly precise choice of a word,[8] does differentiate significantly among children from various socia class backgrounds.

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[7]The data reported here was collected as part of a program "Verbal Enrichment and School Achievement in Lower Socio-economic Groups", which is supported in part by a grant from the Taconic Foundation to Dr. Martin Deutsch and Dr. Alfred Freedman of the Department of Psychiatry of the New York Medical College.

[8]The best-fit word in describing a complex picture. No statistically significant differences were obtained when these same children were asked to enumerate the various components of the pictures as they perceived them. At the labeling level, we attempted to highlight by means of our current findings, the proposition, that lower-class children who are assumed to have more limited verbal interaction in their homes, -- particularly of the corrective as well as a rewarding feedback offered by the significant adults around them, will exhibit specific deficits in their test performance. At this first level of language behavior, lower class Negro children in the elementary grades when compared with Negro children from other SES groups, show less proficiency when asked to summate verbally.

Returning to our earlier discussion of language development, it is possible to interpret this finding by stating that certain recurrent associations between names and their referents do occur in all socio-economic environments with a great enough frequency to be acquired by association and overlearning however, the acquisition of word meaning at a more complex level is a sensitive indicator of certain aspects of the child's early environment. The nature of the communicative engagement, -- or the internalization of the external dialogue, -- needs to be further examined in the lives of young children -- as a source for productive ideas concerning language acquisition and enrichment.

Though a mother may understand the one-word sentence of her offspring, few communicators engage in language behavior in this way. The relating or chaining of words, the mastery of syntactical rules, is examined at the second level of the language model presented here. When evaluating the child's performance on language tasks, we are also concerned with sentence structure, traditional grammar, as well as his manner of grouping linguistic units outside the framework of the sentence (the word association test elicits behavior of the latter kind). Currently, the most exciting advances in psycholinguistic research are made in this area of language behavior. However, the children who are the subjects in these investigations are predominantly drawn from the same socio-economic environment as before, and when analyzing some of the preliminary findings related to group differences obtained by measures assessing language behavior at this level, the performance of the three groups of children reported on above did not differ as sharply as on the Verbal Identification Test. In analyzing continuous speech as obtained in tape-recorded sessions in a small study I have been conducting in Rochester, I have been struck by the substantial difference between individual children drawn from the socio-economic group. The narrative skill of some of the Negro children raised in highly impoverished circumstances may best be illustrated by a tape-recorded story told by a six-year old to his teacher.

Alvin: Here was a girl named Mary. Her mother told her to eat these pears. and she washed the dishes. . . (whispering) Let me see. what's that next part?, . . mopped the floor and broomed the floor. . . so when a little girl came and said give me a pear I wash the dishes so she gave her a pear and she ran away a boy came and say give me a pear I mop the floor so he gave her a pear and she ran away. Another little girl came and said Give me a pear. I'll broom the floor. So she gave her a pear and she ran away. So her mother came back and said, Mary, what happened to

them pears? A boy came and took em. What boy? Den father came and say, where Mary? Overto a friend's house, and then Mother sayput your head on the spool. She chopped her head off and she buried it by the pepper tree. So, Poppa came back and said, No she ain't you go pick some peppers so she went n' pick some peppers and she said Poppa Poppa don't pull my hair. Cause, . . . cause Momma killed me for three lousy pears. He picked one an ran off. He said, so Mother why don't you pick some? So Mary said it again. She said, Momma, Momma don't pull my hair cause you killed me for three lousy pears. . . That's the end.

We may develop conjectures concerning the reason for the vividness of detail and feeling in this little boy's story. Suffice it to say, that in Word Association protocols, in stories obtained by means of the Clown and Rocket technique, by means of interviewing, we have encountered many examples of language in lower-class Negro children which reveal communicative strength in description. This child's language is not conforming to some of the syntactical rules that we like to hear from first graders, but it is powerful communication.[8]

The point has been made in this exposition that the age period between two and five roughly corresponding to stage two is not only a period of rapid language growth but also a stage of language acquisition of particular importance for inner speech. Though one may be able to control the overt behavior of an organism by means of reinforcement schedules, it is precisely the covert processes of thinking that are the jealously guarded subjective domain of each individual's life.

It has been proposed that the richness and spontaneity of the language behavior of the pre-school child during this second stage of development is one of the foundations of verbal thinking and fantasy in later life. Consequently, pre-school language

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[8]The findings obtained by means of the tasks developed to measure behavior at the language-conceptual level, such as concept-sorting, reveal a deficiency on the part of the slum child in areas of verbal abstraction. These results from the verbal survey conducted at the Institute are in agreement with similar findings reported by other investigators. In order to construct effective programs of enrichment, it is necessary to state more than the fact of these differences.

enrichment should take into account this particular principle.[9]

In summary, I mention again that our knowledge of the conditions under which the acquisition of language and cognitive skills takes place is yet poorly understood. But the impact of the socio-psychological environment of the growing child on these skills is receiving increasing attention on the part of the behavioral scientist.

In this presentation I have attempted to emphasize some of the salient features of language and cognition characterizing the age span of 2 - 5. I submit that enrichment programs have to be based upon the explication of what is the most significant aspect of development occuring for children at this age instead of being fashioned upon the skills and tasks required of the older school age child. It is to this aim that much of the theoretical discussion in this paper has been devoted.

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[9]Language enrichment then, during the pre-school years should not be based upon a simple watering down of skills required of the school-age child. On the contrary, a full encouragement of individual play where the child finds himself in a group setting but <u>still</u> can engage in spontaneous language is of great importance. To sustain such a program, it would seem feasible to use not the college-trained individual singularly, but the high schooler who, in cooperation with the "usual professional" could make a substantial contribution to the pre-school environment. It is not only the individual with the Ph.D. or the Bachelor's Degree who can listen, reward and interact with the speaking child. In fact, the high-schooler from the area may have a rapport with these children that we, coming from other environments, have consciously to work at and develop.

1. Brodbeck, A. J. & Irwin, O. C. The speech behavior of infants without families. Child Develpm., 1946, 17, 145-156.

2. Gibson, Eleanor J. A re-examination of generalization Psychol. Rev., 1959, 66, 340-342.

3. Hunt, J. McV. Intelligence and Experience, New York: Ronald Press, 1961.

4. Koch, H. The relation of primary mental abilities in five and six year olds to sex and characteristics of his siblings. Child Develpm., 1954, 25, 209-223.

5. Lewis, M. M. How Children Learn to Speak. New York: Basic Books, 1959.

6. McCarthy, D. Affective Aspects of Language Learning: Presidential Address, Division of Developmental Psychology, APA. Mimeographed, 1961.

7. McCarthy, D. Language Development. Monogr. Soc. Res. Child Develpm., 1960, 25, No. 3, p. 13.

8. Piaget, Jean Language and Thought of the Child, New York: Meridian, 1955.

9. Rheingold, Harriet, & Bayley, Nancy. The later effects of an experimental modification of mothering. Child Develpm., 1959, 30, 363-372.

10. Vygotsky, Lev. Thought and Language, Ed. & trans. by Hanfwann, E. and Vakar, G. New York: Wiley, 1962.